



Finding Environmentally Friendly Solutions to Aviation Maintenance Challenges

Fleet aviation maintenance personnel with environmental responsibilities have an information-rich resource to help them achieve the dual goals of operational readiness and environmental protection. The Naval Air Systems Command's (NAVAIR) Fleet Environmental Information Exchange (EIE) is dedicated to supporting the environmental management needs of aviation maintenance personnel through the timely exchange of advice about innovative maintenance practices and technologies.

Background

NAVAIR recognized that Fleet aviation maintenance personnel with environmental responsibilities were confronted by ever-changing restrictions and opportunities in the materials and technologies they use. The opportunities for productive discussion of the issues and developments were limited. NAVAIR responded with the EIE.

The EIE, first held in 1999, is an annual event. Meetings are hosted by Navy Regions, with an effort to alternate from the East Coast to the West Coast. Attendees have enjoyed such locations as Jacksonville, Florida; New Orleans, Louisiana; Norfolk, Virginia and San Diego, California.

Goals and Format

The primary goal of each EIE is to identify unresolved Fleet environmental needs and

provide solutions in real time at the meeting. Maintenance personnel are encouraged to take the lead in establishing each meeting's agenda. Meeting organizers email a Naval message to notify personnel of the EIE date and to solicit topics and specific concerns.

Every EIE is open to representatives from Navy and Marine Corps who face environmental challenges in their work. While most of the issues addressed at the event are relevant to both the Navy and Marine Corps, each group also benefits from discussions and presentations specific to its needs.

The meetings include a mix of presentations and small group discussion. Subject area experts present information on new materials,









A History of the Environmental Information Exchange

Where	When	Attendees & Action Items	Details
Jacksonville, FL	September 1999	A dozen attendees identified 28 action items.	Hurricane Floyd resulted in low attendance.
New Orleans, LA	June 2000	40 Fleet representatives identified	Evening trips to Bourbon Street added
		over 30 action items.	some color to the meeting.
San Diego, CA	June 2001	Nearly 100 sailors identified 70 action items.	First EIE tradeshow exposed attendees to innovative maintenance technologies.
Norfolk, VA	June 2002	Over fifty attendees including two dozen sailors and marines identified 47 action items.	Large contingent of Marines present.
San Diego, CA	April 2003	Over 100 attendees identified several dozen action items.	Attendees received hazardous materials management training.

technologies and methods. The small group discussions provide a setting in which Fleet aviation maintenance personnel can readily raise concerns, share solutions and network with their peers. A concurrent EIE Tradeshow offers Fleet personnel the most up-to-date technology, along with the necessary knowledge to apply it.

While every effort is made to work out issues at the meeting, some topics require more time. Concerns that cannot be resolved at the meeting are flagged as action items to be addressed within 60 to 90 days.

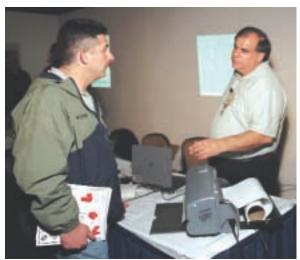
Specific Examples

Past meetings and attendees' comments provide the best insight into the meetings.

Whole group sessions provide an opportunity to review the previous year's action items and resolutions as well as to detail how action items will be collected. Subject area experts then make presentations and open to group discussion issues raised by Fleet personnel. For example, group discussions have focused on painting and depainting; cleaning and corrosion control; and environmental training that is available and that is needed.

The sessions also provide a forum for identifying and working to resolve specific needs. At the 2001 Environmental Information Exchange, representatives from the Marine Air and Logistic Squadron







(MALS) 39 (located at Marine Corps Air Station Camp Pendleton, California) initiated an action to address the current limited availability of fieldworthy materials for bonding the leading edge of H-46 helicopter blades. The problem for MALS-39 was that the Structural Repair Manual called out an A-1100 silane solution that is only provided by materials engineering laboratories located at maintenance Depots. MALS-39 needed field access to A-1100. Lacking the proper materials, field-level bonds are not durable and have resulted in catastrophic failure. A sol-gel surface preparation using AC-130 was identified and approved for field repairs. (NOTE: The term "sol-gel" is a contraction for 'solution-gelation' and refers to a series of reactions where a soluble metal species, typically a metal alkoxide or metal salt, hydrolyzes to form a metal hydroxide.) It has been assigned a stock number and ordered by the PMA. Field demonstrations are scheduled in early FY04. EIE was the forum that initiated the solution to MALS-39's problem.

Smaller breakout sessions provide attendees the opportunity to discuss topics of greatest interest to them. The concurrent breakout sessions at the 2003 EIE addressed shelf life; product preservation; Bird Aircraft Strike Hazard (BASH); tire and wheels; non-destructive inspection (NDI); adhesives, bonding and sealants; composite repair; fluid contamination; liquid oxygen; fuels and lubricants; and support equipment issues.

Topics at other meetings have included the need for consistent hazardous materials control systems

EIE Feedback

Each year the attendees are surveyed to determine what about the meeting works well and what should be changed. Some of the feedback included the following:

- "Knowledge is power and I feel that there was plenty of knowledge to be obtained."
- "Information was leading edge..."
- "Met my expectation—short, sweet and to the point."
- "...what you have is an overwhelming asset to the Fleet and needs to be maintained..."
- "I was floored by this conference. It was my first conference—I hope it won't be my last."

between Navy and Marine Corps aviation maintenance operations; manual discrepancies and electronic publications; leveraging the Navy's Technology Needs Survey process for the Marine Corps; F-14 fueling operations; pre-positioning hazardous materials for deployments; Qualified





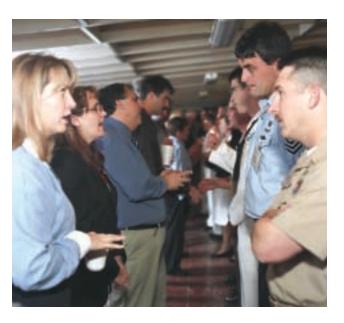


Products Lists; and many other items related to support equipment and hazardous materials management.

Hands-on demonstrations have included the corrosion control tool kit that uses bristle-disk technology. The tradeshows also offer up-close looks at new technologies. Highlights from past meetings have included paint gun cleaning systems; digital radiography for nondestructive inspections (NDI); thermal imagery; particle counters; steam cleaning technologies; laser "paint assist;" Sol Gel surface preparation; sealant removal tool and mildew removal kit.

Courses earning training credits are also available. The most recent course offered hazardous materials awareness training.

The previous year credit was earned for hazardous communication training.







Conclusion

The EIE is a Fleet-driven event to help personnel build their knowledge base and excel in their efforts to achieve both operational readiness and environmental protection. Watch for the next EIE Naval message, get your questions in and mark your calendar for the next EIE.

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For more information about the NAVAIR environmental program, please visit our web site at https://www.enviro-navair.navy.mil.

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